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m		US-2,077,7	707			04/20	/1937		Melton		
		US-2,531,0	088			11/21	/1950		Thompson		
		US-3,052,8	836			09/04	/1962		Postma		
		US-3,398,3	356			08/20	/1968		Still		
		US-3,548,299				12/15	5/1970		Duroux et al.		
		US-3,806,7	795			04/23	/1974		Morey		
		US-3,836,9	960			09/17	7/1974		Gehman et al.		
		US-4,010,4	413			03/01	/1977		Daniel		
		US-4,047,0	098			09/06	5/1977		Duroux		
		US-4,079,3	309			03/14	/1978		Seeley		
		US-4,258,3	321	· ··		03/24	/1981		Neale, Jr.		
		US-4,258,3	322			03/24	/1981		Rocroi et al.		
		US-4,308,4	499			12/09	/1981		Thierbach et al.		
		US-4,417,2	210			11/22	2/1983		Rócroi et al.		
		US-4,446,4	434			05/01	/1984		Sternberg et al.		
		US-4,451,7	789			05/29	7/1984		Meador		
		US-4,489,2	276			12/18	3/1984		Yu	1	
		US-4,506,2	225			03/19	/1985		Loveless et al.		
→		US-4,547,7	733			10/15	7/1985		Thoraval		
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		EP 008727					/1983				
	44	GB 215518					3/1985			ļ	
		EP 021923					2/1987			 	
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Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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And	7		US-4	,594,551		06/	10/1986		Cox et al.		
0)				,616,184		10/	07/1986		Lee et al.		
			US-4	,617,518		10/	14/1986		Srnka		
			US-4	,633,182		12/	30/1986		Dzwinel		
			US-4	,652,829		03/	24/1987		Safinya		
			US-4	,677,438		06/	30/1987		Michiguchi et al.		
			US-4	,760,340		07/	26/1988		Denzau et al.		
			US-4	,835,474		05/	30/1989		Parra et al.		
			US-5	,025,218		06/	18/1991		Ramstedt		
			US-5	,066,916		11/	19/1991		Rau		
			US-5	,177,445		01/	05/1993		Cross		
			US-5	,192,952		03/	09/1993		Johler		
			US-5	,280,284		01/	18/1994		Johler		
		_	US-5	,373,443		12/	13/1994		Lee et al.		
			US-5	,400,030		03/	21/1995		Duren et al.		
			US-H	11490		09/	05/1995				
			US-5	,486,764		01/	23/1996		Thompson et al.		
			US-H	I1524		04/	02/1996		Thompson et al.		
1			US-H	11561		07/	02/1996		Thompson		
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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

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a		119-5	,563,513		10	/08/1996				
- Great			,689,068			/18/1997			•	
			,767,679			/16/1998		Schroder		
			,811,973	 	-	/22/1998		Meyer, Jr.		
		US-5,841,280				/24/1998		Yu et al.		
		US-5,877,995				/02/1999		Thompson et al.		
			,886,526	· · · · · · · · · · · · · · · · · · ·		/23/1999		Wu		
			,892,361			/06/1999		Meyer, Jr. et al.		
		 	,955,884		09	/21/1999		Payton et al.		
		+	,002,357		12	/14/1999		Redfern et al.		
		US-6	,023,168		02	/08/2000		Minerbo		
		US-6	,060,885		05	/09/2000		Tabarovsky et al.		
		US-6	,157,195		12	/05/2000		Vail, III		
		US-6	,163,155		12	/19/2000		Bittar		
		US-6	,184,685		02	/06/2001		Paulk et al.		
		US-6	,188,221		02	/13/2001		Van de Kop et al.		
		US-6	,188,222		02	/13/2001		Seydoux et al.		
		US-6	5,225,806		05	/01/2001		Millar et al.		
		US-6	,246,240		06	/12/2001		Vail, III		
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Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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	,	US-6	,480,000 (B1	.)	11/1	2/2002		Kong et al.	
)	US-2003/0048105 (A1)			03/1	3/2003		Ellingsrud et al.	
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gref			Ellingsrud et al., "How Electromagnetic Sounding Technique Could be Coming to Hydrocarbon E & P", 20 First Break (March 2002).								
		ident	Eidesmo et al., "Sea Bed Logging (SBL), a new method for remote and direct identification of hydrocarbon filled layers in deepwater areas", 20 First Break (March 2002).								
		Kaufman et al., "EM Field of an Electric Dipole on the Surface of a Medium Containing a Thin Resistant Layer", Frequency and Transient Soundings, publ. Elsevier, (1983).									
		Kaufman et al., 1981 Annual Meeting Abstracts: Marine EM Prospecting System, 47 Geophysics 431 (1982).									
		Garg et al., "Synthetic Electric Sounding Surveys Over Known Oil Fields", 49 Geophysics 1959-67 (November 1984).									
		Yuan et al., "The Assessment of Marine Gas Hydrates Through Electrical Remote Sounding: Hydrate Without a BSR?", 27 Geophys. Res. Letts. 204-217 (August 15, 2000). Edwards, "On the Resource evaluation of Marine Gas Hydrate Deposits Using Sea-Floor Transient Electric Dipole-Dipole Methods", 62 Geophysics 63-74 (January 1997). Chave et al., "Some Comments on Seabed Propagation of ULF/ELF Electromagnetic Fields", 25 Radio Science 825-36 (September 1990).									
		MacGregor et al., "Use of Marine Controlled-Source Electromagnetic Sounding for Sub-Basalt Exploration", 48 Geophys. Prosp. 1091-1106 (April 2000).									
		MacGregor et al., "Marine Controlled Source Electromagnetic Sounding: Development of a Regularized Inversion for 2-Dimensional Resistivity Structures", 1 LITHOS Science Report 103-109 (April 1999).									
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gra		the R	Sinah et al., "Magmatic Processes at Slow Spreading Ridges: Implications of the RAMESSES Experiment at 57 deg. 45'N on the Mid-Atlantic Ridge," 135 Geophys. J. Int. 731-45 (July 1998). Sinah et al., "Evidence for Accumulated Melt Beneath the Slow-Spreading Mid-Atlantic Ridge," 355 Phil. Trans. R. Soc. Lond. A 233-53 (January 1997).								
		1									
		Cheesman et al., "On the theory of sea-floor conductivity mapping using transient electromagnetic systems", Geophysics, Vol. 52, No. 2, February 1987, pages 204-217.									
	-	Greaves et al., "New Dimensions in Geophysics for Reservoir Monitoring", pages 141-150									
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